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(21) International Application Number: PCT/US98/16890 (22) International Filing Date: 14 August 1998 (14.08.98) (30) Priority Data: 60/055,754 14 August 1997 (14.08.97) US (71) Applicant (for all designated States except US): THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA [US/US]; Suite 300, 3700 Market Street, Philadelphia, PA 19104 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): MAHALINGAM, Sundarasamy [IN/US]; Apartment #113, Valley Ridge Apartments, Golden Crest Circle, Birmingham, AL 35209 (US). AYYAVOO, Velpandi [IN/US]; 120 Joanna Road, Havertown, PA 19083 (US). PATEL, Mamata [US/US]; 229 South 22nd Street, Philadelphia, PA 19103 (US). KIEBER-Emmons, Thomas [US/US]; 3231 Sawmill Road, Newtown Square, PA 19073 (US). WEINER, David, B. [US/US]; 717 Beacom Lane, Merion Station, PA 19066 (US).		(74) Agents: ELDERKIN, Dianne, B. et al.; Woodcock Washburn Kurtz Mackiewicz & Norris LLP, 46th floor, One Liberty Place, Philadelphia, PA 19103 (US). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: FUNCTIONAL FRAGMENTS OF HIV-1 VPR PROTEIN AND METHODS OF USING THE SAME		
(57) Abstract <p>Conjugated compositions comprising a fragment of HIV-1 Vpr or a non-HIV-1 Vpr protein conjugated to a therapeutic compound and methods of using the same to deliver therapeutic compounds to a cell's nucleus or for the preparation of drug delivery particles are disclosed. Functional fragments of HIV-1 Vpr and functional non-HIV-1 Vpr proteins, and pharmaceutical compositions comprising the same are disclosed. Methods of inhibiting cell proliferation and methods of treating an individual who has a hyperproliferative disease are disclosed. Methods of identifying compounds that inhibit Vpr protein binding to the p6 domain of p55 or to p6 protein and kits for performing such methods are disclosed.</p>		

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